Three Card Trick

Jim liked a drink, but one thing he liked even more was a flutter. Which was unfortunate, because he was a very unlucky gambler. Every time he backed the favourite in the big race, it got beat out of site. Every time he back an outsider each way, it ran to form. Likewise, whenever he backed a football team or boxer he came unstuck. If he backed the underdog, the favourite won; if he backed the favourite, there was an upset. He lost heavily at backgammon when, after offering the cube at the bearing off stage, he would proceed to throw deuce-ace three times in a row, while his opponent would invariably chip in with at least one double six. He was even a sucker at bridge, his favourite ploy being to finesse to a singleton king. All in all, Jim was one unlucky gambler.

In spite of all this, he thoroughly enjoyed gambling, but he realised he would need a drastic turnaround in his fortunes if it was every to be worthwhile. And, one Thursday afternoon, he found it.

Every Thursday without fail he visited the branch library, where he would spend much of his time browsing through books on gambling. This week though, most of the gambling section was out on loan, so he found himself straying rather bored into the section on mathematics. He picked out the book more on account of its bright pink cover than for its title: *POSERS IN PROBABILITY* by B. E. Stodds, and opened it at random. Glancing down the page he read the following paragraph: *The Three Card Trick*

The following is a neat little brain teaser you can try out on your friends. Take three identical blank cards and mark the first one with a red spot on both sides. Mark the second card on both sides with a black spot, and mark the third red on one side, black on the other. Shuffle them up while holding them in a hat to ensure you can't see which is which, then pull one of the cards out of the hat and place it face down on the table. Now say (for example) the card shows a red spot. Obviously it's not the all black card, therefore it must be either the all red card or the red/black card. If now you offer someone even money that the other side is black, should they accept the bet? At first glance you might think these are the correct odds. But if you were to find someone foolish enough to accept, you would undoubtedly be a rich man at the end of the evening, because the real odds are in fact two to one in your favour. Can you see why?

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Jim couldn't, even after wracking his brain for ten minutes. Turning to the answer section at the back of the book, he read the solution and smiled to himself. Although there appeared to be only two possible permutations: red and red; and red and black; there were in fact three. He could be looking at the red and black card, or either of the faces of the all red card. So there were two ways of finding the all red, but only one way of finding the two tone card.

Jim did some deep thinking that evening. He knew the reasons he lost so much money in the betting shop. The first reason was that he was just plain unlucky, but the second and more important reason was that the bookies always had a house percentage. He had read all about this in books on roulette and other casino games. At roulette the house had a very small percentage, 2.7% straight up and a piddling 1.35% on even chances. Even so, the casino invariably won. It was a racing certainty that the bookmaker enjoyed a much larger percentage than that. It was impossible to calculate exactly without a computer and a mass of information about every race, but it was probably fair to say that if a horse started at two to one its real odds were more likely three or four to one, and for the outsiders and rank outsiders they were undoubtedly a great deal less. How many times a week did a thirty-three to one shot win a race? And how many times in a season was a winner returned at a hundred to one? Then there was the tax on top of that, a staggering ten percent. No wonder he always lost; it was a miracle that anyone ever won.

This three card trick was something different though. If he played that, or rather, if he could con someone into playing it with him, he would surely win. But who would play it? Even if he found a sucker who was gambling mad like himself, the fellow would never play. If he thought it was an even money bet, he'd no more play Jim at this than he would toss a coin all night; it would be just too boring. Suppose though he were to offer his mug five to four, he'd be tempted then, surely. People always were if they thought they were getting paid over the odds. Great, thought Jim, but where do I find a sucker? He found the answer to that a couple of hours later when he was standing at the bar in *The Nag's Head*.

He was just starting his second pint when a familiar voice rang out followed by the all too familiar slap on the back.

"Evenin' Jimbo!"

“Oh hell,” he thought, trying not to spill his beer, “not him again”.
“The usual,” shouted the oaf as he pulled up a stool and sat next to Jim.
The barman nodded and began pouring him a pint.
“So what do you know, Jimbo?”
“Not much. You?”
“I know I was robbed this afternoon.”
As he said this he took a pink slip of paper out of his pocket and handed it to Jim.
“Look at that,” he said, then turning to the barman, “Ta Norman, have one yourself”.
The barman thanked him with a smile and handed him his drink. He pulled a five pound note out of his top pocket and, with a flick of the wrist, threw it down on the bar. Jim studied the betting slip.
“Did that get beat: Christmas Cottage?” he asked.
“Only in the poxy stewards’ room”.
“Oh God, not again.”
“Yeah, they’ve cost me a grand this month, those...so and so’s”, he let out after a pause.
“Blimey, Tony, you’re nearly as unlucky as me.”
“I ought to take up poker or some new game”, he said as he pocketed his change.
“Er, I learned a new game today,” said Jim, “want to see it?”
“Why not?” said Tony.
“Let’s go and sit over there.”
Tony – *the oaf* as he was affectionately known – followed Jim to a corner seat. The bar was filling up now; it was a popular pub, and in another ten minutes it would be standing room only.
“What is it then, find the lady?”
“No, not that,” said Jim, “though it does use three cards.”
He took the cards from his pocket, having prepared them before coming out tonight. Taking his rain hat out of his jacket pocket, he placed it on the table next to the cards.
“Right, see these?” he said.
Tony inspected the cards, “Yeah.”
“What colours are they?”

“One’s black, one’s red, and...yeah, one of each.”
“Right, they all look identical?”
“More or less.”
“I mean, you couldn’t tell by looking at that one”, he said pointing to a red spot, “whether that was red both sides or red and black?”

Tony inspected all the cards at length and said, “No, they all look the same to me.”
Jim picked up the cards and started shuffling them. At this point he became aware of a tall, thin, well dressed young man sitting at the adjacent table who was staring at him with intense curiosity. Jim smiled at the man non-commitally, then turned back to his intended victim. “Right, pick one out without looking at it.”
Unnoticed, the tall thin man thrust a copy of the *Sporting Life* into his pocket and walked over to the table, standing immediately behind Jim.
Jim took the card Tony had picked and placed it on the table.
“Right, what colour is that?” he asked.
“Black”.
“Okay, so it can’t be the all red card?”
“No.”
“So this is either the all black card or the red and black card.”
“Right”.
“What would you say is the chance of the other side being red?”
“Fifty fifty”, said Tony.
“Okay”, said Jim, “I’ll give you five to four.”
“Five to four what, Jimbo?”
“That the other side is red.”
Tony yawned, “I wouldn’t take your money, Jimbo.”
“I would”, said a voice from behind.
Jim looked around and saw the tall thin man watching his failed attempt to part Tony from his money.
“Er, well.”
“Go on, Jimbo, you got yourself a punter.”
Tony fished in his pocket, took out his copy of the *Sporting Life* and said “I’m gonna see if I can pick out a few winners for Saturday.”
“Er, well, what you do is...”
“I get the hang of it,” said the man, “and I can bet whatever I like, right?”
“Er, yes, you can”, said Jim.
“Right”, said the man, “forty.”
“Forty quid!” Jim exclaimed.

“Forty pence” said the man.
“Oh”, Jim laughed, and took out his wallet flashing it at the man to let him see how thick and well padded it was.
“We usually play for bigger stakes here,” said Jim, with a put down smirk on his face.
“Take his money: many a fickle makes a mickle” said Tony peering over the top of his paper before continuing to study the big race form.
The man dropped two coins onto the table and said “Go on, just until I get the hang of it. Forty pence at five to four says the other side is red.”
Jim nodded and turned the card over.
“Black,” he said.
The man nodded, and Jim pocketed his forty pence. At this point, a policeman walked into the now crowded bar, but although several people stared curiously, Jim and his two companions didn’t notice him at all.
“Same again?” asked the man.
“Okay, big spender.”
Jim began shuffling the cards and, placing them in the hat, he touched a card blindly.
“This one,” he said.
Jim took out the card and placed it on the table. It showed a red spot.
“Right”, he said, “obviously this isn’t a black card, so it’s either the all red card or the red-black. I’ll give you five to four the other side is black.”
“You’re on” said the man, and placed another forty pence on the table.
Jim turned the card over and announced: “Red. You lose.”
The man smiled, shook his head and fished in his pocket for some more money. Meanwhile, on the other side of the room, the policeman was talking to a small group of men. Tony looked up from his *Sporting Life* and saw them shaking their heads one at a time, but thought no more of it. One of the men pointed to the bar, and he turned back to his paper. He soon looked up again though when the man said to Jim “You want to raise the game?”
“Your wish is my command”, said Jim, sounding far from

thrilled as he pocketed another forty pence.
“Two ’undred”, said the man.
“What!” Jim stared at the bundle of notes on the table; Tony folded up his *Sporting Life*, and the man said “My two hundred against your two fifty; I reckon I’m due for a win.”
“Two hundred?”
“You wanted to raise the game”, he paused, then added with a touch of sarcasm, “big spender.”
Jim opened his wallet, counted out five, crisp new fifty pound notes, and placed them on the table. Then he shuffled the cards, continued shuffling them as he placed them in the hat, and looked at the man questioningly.
“That’ll do”, he said, and put his finger on a card, which Jim removed carefully so that neither of them could see the other side. The policeman was trying to push his way to the bar with some difficulty, but all three men had their eyes glued to the table.
The card showed a black spot, and Jim said, “Right, you want two hundred pounds at five to four that the other side of this card is red?”
“That’s right, there’s my money, turn it over.”
Jim turned it over, and his heart leapt into his mouth.
“Red!” said the man, his face breaking into a grin.
Tony gave a low whistle; the stranger picked up his stake money and Jim’s two hundred and fifty pounds.
“I said I was due for a win”, said the man, “double or quits?”
His voice had raised a third, and there was a definite tremble of excitement in it.
“Er,” Jim thought for a second, then said “yes, why not?”
He had another four hundred pounds in his wallet; he always liked to carry a lot of money around with him in case he pulled a bird. There was nothing Jim liked better than flashing his dosh about to impress the ladies, nothing except drinking and gambling, that is. Besides, his credit was good here. Tony would lend him a monkey or even a grand at the drop of a hat, and Ken, the landlord, had known him for years, he’d cash him a cheque if it came to that. But it wouldn’t come to that, Jim was sure. This guy was a prize mug; he wouldn’t let up until he’d given it all back with compound interest.

“Okay”, said Jim, “my two fifty against your two hundred.”
Once again the two men placed their stakes on the table, and once again Jim began shuffling the cards.
“That’ll do”, said the man as he extended a trembling finger and tapped the top of an unseen card.
“Christ”, thought Jim, “he’s nearly having an orgasm”.
A few seconds later he nearly had kittens.
“Black,” said Jim.
“Aye, and my two hundred says the other side is red”, the man ejaculated.
“Excuse me, sir”, came an authoritative voice from a foot away, “is that your grey Cortina parked outside at the bus stop?”
The man turned to face the fearsome looking policeman and stuttered “Oh, er, yes.”
“Then I suggest you move it. Now!”
“Oh, er, I, I’m sorry.”
“It’s an offence to obstruct a bus stop, as I’m sure you know.”
“Y-yes.”
“That’s what the double yellow line is there for.”
“I w-was just...”
The policeman looked down at the table, and frowned at the two piles of money.
“You’re not gambling, are you sir?”
“M-me, n-no.”
The man must have had a phobia about policemen because he was clearly petrified.
“No officer”, said Jim.
The man picked up his money and thrust it into his pocket.
“I’ll be back in a minute”, he said to Jim.
“Are you drinking, sir?” asked the policeman.
“What? No, not d-drinking and driving”
“Then as you’re not drinking, you’ve no reason to come back. Have you, sir?”
“I, I...”
“Unless you’re gambling”. The policeman stuck out his chin like a bulldog, and the terrified man fled from *The Nag’s Head* never to be seen again. Turning back to Jim, he frowned, but Jim met him eye to eye, raised his glass and took a long, slow swig of his beer. The policeman grunted, turned his head

and walked slowly out of the bar like a cowboy in search of his horse.

Jim muttered something unprintable under his breath; Tony leaned across and turned over the card with the black spot showing. There was a black spot on the other side, too.
Tony shook his head, “You’d have won”, he said, “he was buzzing, that bloke; you’d have taken him for every penny.”
Jim stared into the bottom of his empty glass, trying to sound philosophical, “Somebody up there must be trying to tell me something”, he sighed. “Same again?”